Appendix I - IGA Scope of Work

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WASTEWATER TREATMENT FACILITY (WWTF) - PROJECT SCOPE OF WORK

The WWTF is being designed for 0.5mgd average dry weather flow with buildout up to 0.8mgd. The system will be built to accommodate planned growth in the City and will treat effluent to disinfected tertiary standards for recycling as part of a future project. Major WWTF project scope elements include the following, subject to further definition and revision during Phases I and II:

- WWTF Wastewater Treatment System with Equalization
    - Influent equalization pond assumed to be a 1,100,000+ lined pond created by converting the existing effluent storage pond. Pond storage may be combined with additional membrane bioreactor (MBR) tankage to meet total equalization and emergency storage volume requirements. Reuse of the existing equalization pond is subject to FEMA review and any required approvals related to floodplain impacts or regulatory constraints. An alternate equalization strategy shall be developed as an optional scope item if reuse of the equalization pond is not feasible.
    - Skid-mounted and shop-assembled and tested MBR wastewater treatment system utilizing 304 SS tanks installed on concrete foundations. selected package shall be designed and supplied by Cloacina LLC, Arroyo Grande, CA.
    - Package to include influent fine screens, equalized flow delivery pumps, anoxic and aerobic treatment tanks, blowers, forward activated sludge pumps, membrane tanks, including additional membrane capacity for peak flow management, clearwell, outdoor inline UV disinfection system or chlorine disinfection system, auxiliary pumps, main control panel, stairs, platforms, and canopies
    - Flows pumped directly to WWTF influent fine screens from Lift Station (MBR tanks and equalization basin), with valving and controls system adjustments depending on the final site layout and theory of peak flow operation.
    - Chemical storage totes and metering pumps in an outdoor pad with sun/rain cover
    - Flow to Equalization Basins will pass through ~~exising~~existing course screens, if suitable.
- Effluent Transfer Pump Station
    - Outdoor horizontal centrifugal variable speed pumps to deliver effluent from clearwell through UV system to Recycled Water Storage Tank or to surface water disposal
    - Pump station sizing to be similar to WWTF influent flow criteria, based on analysis of future recycled water demands
- WWTF Solids Handling
    - Shop-assembled packaged dewatering system consisting of sludge holding tank, feed pump, chemical addition, and volute or screw press dewatering unit installed outdoors under a canopy. Canopy designed by PTV and attached to shop-assembled system or the pad it is mounted on
    - Control panel integrated into SCADA
    - Discharge to a rolling bin for offsite disposal in a landfill
    - Evaluation of repurposing existing pond and trickling filter as equalization basin, in addition to an assessment of feasibility for utilizing other available basins as sludge holding basin(s)
      Optional: provisions made for future Class A or B biosolids treatment. Provisions limited to allocating a space for additional equipment and stubbed out process connections
- Odor Control

    - Provision site layout and connections for future odor scrubber utilizing dry absorptive media (GAC or similar) in a fiberglass scrubber vessel plumbed to scrub air spaces at influent screening, equalization tanks, and site drain pump station, if required by City. Site location and likely use of effluent storage pond for influent equalization may render odor control of influent screening and other areas less effective. To be analyzed during Phase 1 services
- Yard and Process Piping
    - All piping within the WWTF parcel interconnecting process units
- Site Features
    - Grading to create a flat site with sheet flow drainage offsite, except in process areas (drainage study of surrounding lands not included)
    - ~~MOSes to add language on access road, topology survey should include roadway~~
    - A high-level assessment of the site drainage in phase 1 of the design, considering the final plant layout. Based of Phase 1 outcome, final scope and level of efforts will be determined in Phase 2.
    - Process areas drain to local drain pump station for return to treatment
    - Process drain pump station with submersible pumps discharging to headworks
    - LED site lighting with photocell and occupancy sensor
    - Fire hydrants connecting to existing nearby water supply, assuming an existing fire hydrant is within 500 ft of entrance to the plant. Design and Improvements to the existing water system near new plant site may be required to supply required flow and pressure to site for fire flow. Phase 1 should identify any deficiencies to be addressed in Phase 2.
    - Hose bibs/yard hydrants for washdown water
    - Access for entry, exit, and staging of a crane to perform long-term heavy maintenance and plant expansion
    - Curbs and catch basins
    - Chain link fencing and gates
- Recycled Water Pumping Facility (future / by others)
    - The site layout will allocate space for future pump station, recycled water piping connections, and electrical/comms infrastructure for a future effluent pump station for the potential Gold Rush Ranch recycled water strategy. Provision for a future pump station and its associated electrical infrastructure is included in the current phase. The design and construction of future facilities related to pumping and conveyance of recycled water to GRR will be performed by others. Anticipated to be a pressurized pipeline capable of disposing of 500 AF per year.
- Power
    - 480-v 3-phase power distribution (power service and transformer designed by Utility and applied for by Owner, with technical support from ESCO for application and coordination with Utility
    - Evaluation and design of an adjacent solar PV & battery storage system to supplement part of the new plant design power needs
    - Diesel standby generator(s) and automatic transfer switch, sized to allow plant to operate at full capacity. ESCO ~~must obtain~~ will support the city of obtaining the air permit from Amador County Air Pollution District ~~for generator operation~~. ESCO will design any backup generators to follow the Amador County Air Pollution District requirements. All permit fees are paid by the city.
    -

- Controls
    - Design a SCADA system and radio telemetry system or fiber optic connection ~~as indicated in the Control System Block Diagram~~ to provide for monitoring, trending, and remote access. ~~It is assumed this system will be linked to offsite utility monitoring systems~~
    - Design the integration of the overall SCADA system with the included SCADA system as part of the packaged MBR system
    - System integration and programming services will be by a qualified system integrator provided by the ESCO
- Influent Lift Station
    - Influent flows into the WWTF will collect in a new influent lift station. The lift station will convey influent to the packaged headworks system. Peak event flows will be screened if possible and buffered in the influent equalization pond.
    - Sized for peak hour wet weather flow and turndown for average dry weather flow
    - Concrete cast-in-place wet well with protective coating, concrete lid with spring assist H20 loaded access hatch and safety grating
    - Duplex or triplex submersible pumps with discharge elbows and rail systems, design to consider City phasing of influent flows
    - Davit crane for pump service and replacement
    - SCADA control panel
    - Odor scrubber

POTENTIAL OPTIONAL SCOPE ITEMS

The following is a list of potential optional scope items that we have identified during preparation of this RFP Response. We can provide detailed scopes and prices for these items upon request.

- Chemical storage building, base scope includes concrete equipment pad and sun/rain cover.
- Recycled Water System Model – base scope assumes future recycled water system curve is provided by others.
- Fire sprinkler design (if required) and Master Fire Protection Plan designed by Fire Protection Engineer.
- Operations and maintenance building for the WWTF
- Cast-in-place MBR
- Layout on the adjacent property (uphill) and new EQ strategy assuming project constraints are found to be such that constructing improvements on the existing site is determined to be infeasible
- CEQA+/NEPA documentation if Federal funding is pursued and requires this

GENERAL IGA SCOPE OF SERVICES

IGA Process and Deliverables for Wastewater Treatment Upgrades

In general, the IGA will be executed per the three following Phases of the ESCO Team's process:

1. Phase 1 – Preliminary Assessment: The goal of this phase is to Define Customer Problem(s) and a Create a Prioritized Scope List to Solve those Problem(s). This goal is achieved by completing the necessary due diligence to create *Complete* Utility, End Use Breakdown & Process ~~Baseline~~Baselines, *Preliminary* Process Performance & Energy/ Operational Savings, *Preliminary* Engineering Control Documents (Basis of Design Report~~,~~), and *Preliminary* Construction Pricing based on AACE Class 4 Estimate. Goals of this Phase also include:
    - Advance, evaluate, and compare the cost, schedule, and feasibility of WWTF alternatives.
    - Advance permitting, cost estimating, scheduling, environmental review, and other critical project elements to a sufficient level that—at the conclusion of this phase—the City can make an informed decision about project feasibility, risks, costs, schedule, and regulatory concurrence.
    - Complete topographic survey and geotechnical investigations required to inform the evaluation and support a subsequent design phase.
    - Identify candidate Energy Conservation Measures (ECMs). Evaluate opportunities to reduce long-term operational costs, capital reinvestment needs, and regulatory exposure through replacement or major upgrade of the existing WWTF. The analysis shall quantify both energy savings and non-energy value streams, including cost avoidance, operational efficiency improvements, deferred capital costs, and other benefits.
    - Identify proposed project funding and potential impacts to City wastewater rates.
    - Develop a proposed detailed project schedule.

2. Phase 2A – Mid-Term IGA: The goal of this phase is to Obtain Customer Commitments for Technology, Scope and Contract Terms and Conditions. This goal is achieved by completing the necessary due diligence to create *Contract* Utility, End Use Breakdown & Process ~~Baseline~~Baselines, *Complete* Process Performance & Energy/ Operational Savings, *Complete* Engineering Control Documents (30% Engineering and Design Docs~~,~~), *Complete* Construction Pricing based on AACE Class 3 Estimate, and *Complete* Construction Terms and Conditions.

3. Phase 2B – Final IGA: The goal of this phase is to Engage in Customer Contract for Construction with Risks (Technically, Financially or Contractually) Mitigated. This goal is achieved by completing the necessary due diligence to create *Contract* Process Performance & Energy/ Operational Savings, *Contract* Engineering Control Documents (60% Engineering & Design Docs~~,~~), *Contract* Construction Pricing based on AACE Class 2 Estimate, and *Contract* Construction Terms and Conditions.

The definitions below are applicable to the level of completeness used in the descriptions above:

- *Preliminary*: Early versions of design documents that outline the general concepts, ideas, and direction of a project. Typically used to communicate the design concept to stakeholders and to seek feedback on the direction of the project.

- *Complete*: Final versions of design documents that include all of the necessary information and details to fully execute and implement a project. Once issued, these documents are considered

frozen and may not be revised or changed without proper approval via the project change management process. With the approval of ESCO, these documents may contain clearly identified holds for missing information such as vendor provided details.

- *Contract*: Complete versions of documents with final edits for use in contract between Customer and ESCO.

The deliverables of each IGA phase will be formatted to match the Energy Savings Performance Contract attachments, with the level of completeness generally advancing with each successive IGA phase. Some Schedules may not be applicable to Phase 1 Preliminary and/or Phase 2A Mid-Term deliverables. Based on previous construction contracts with other Customers, those attachments could include some or all of the following:

- Schedule A – Scope of Work
- Schedule B – Performance Assurances Support Services
- Schedule C – Performance Guarantee
- Schedule D – Measurement and Verification Plan
- Schedule E – Owner Responsibilities for Performance Guarantee
- Schedule F – Start-Up and Commissioning
- Schedule G – Standards of Performance
- Schedule H – ESCO's Training Responsibilities
- Schedule I – Construction Phasing Plan
- Schedule J – Final Construction Price and Payment Schedule

Each of the above IGA Phases consist of the following 6 sequential Sprints:

a. Sprint 0: Kick-Off
b. Sprint 1: Data Collection
c. Sprint 2: Engineering
d. Sprint 3: Estimating and Procurement
e. Sprint 4: Financial Analysis and Report
f. Sprint 5: Stakeholder Engagement

Tasks for each IGA Phase and Sprint are identified below, some tasks may not be applicable to Phase 1 Preliminary and/or Phase 2A Mid-Term deliverables:

1. Sprint 0: Kick-Off
    a. Client Goals and Objectives
    b. Prioritized Scope List
    c. Funding Approach
    d. Project Approval Process
2. Sprint 1: Data Collection
    a. Site Investigation
    b. Client RFI
    c. Regulatory Agency Engagement
    d. Analysis of Utility and Operational Bills
    e. Energy Baseline and End Use Breakdown
    f. Process Baseline and Theory of Operations
    g. Verification of As-built Equipment Data and Existing Conditions
3. Sprint 2: Engineering

    a. Energy and Operational Savings Calculations
    b. Utility Rebates and Other Incentives
    c. Engineering Control Documents and Regulatory Compliance (see deliverable details below, under **SPECIFC WWTP IGA ENGINEERING SCOPES OF SERVICES** heading)
    d. Phasing Plan
    e. Inspection, Testing, Commissioning Acceptance and Turnover Plan (ITCAT)
    f. M&V Approach
    g. O&M Approach
    a. Operator Training
4. Sprint 3: Estimating and Procurement
    a. Construction Price Estimate
    a. O&M Estimates
5. Sprint 4: Financial Analysis and Report
    a. Cash Flow Analysis (25-year)
    a. Contract Schedules
6. Sprint 5: Stakeholder Engagement
    a. Workshop Meetings
    b. Deliverables Presentation
    c. Stakeholder Review and Comment
    d. Comment Discission, Resolution, and Closeout

PROJECT MANAGEMENT

ESCO and its subconsultants (Design Build Team) will perform internal management of the project, schedule, and budget, partner with the project team members, and attend meetings and workshops. The Design Build Team will prepare meeting agendas, handouts, and minutes for all design meetings. The Design Build Team will maintain a Project Decision and Action Item log for tracking of all decisions and actions and will update this at each progress meeting and distribute to the team. Project management shall include overall management of the project; team coordination; coordination with the City and any other consultants; regular progress meetings; workshops; and presentations. Project management includes the following meetings, progress reports, and milestones:

- Biweekly Project Team Meetings, virtual
    - The Design Build Team shall meet with the City team via virtual meetings on a biweekly basis during **Phase 1** and **Phase 2**
- Customer Project Kick Off & Site Investigation, in person
    - The Design Build Team will meet with the City at the project site to gather and review the necessary data and documentation required to develop the project design criteria, and to discuss key considerations for selecting the appropriate criteria
- Customer Meeting & Site Investigation Teams Recap, virtual
    - The Design Build Team will meet with the City via virtual meeting to review and discuss the findings from the site investigation and results of documentation review and discuss site planning and preliminary construction phasing observation
- Alternative Analysis Workshop/Presentation, in person
    - The Design Build Team will meet with the City via virtual meeting to review the results of the alternative analysis and make a decision on project direction as a result of the analysis.
- Technical Design and Alternatives Analysis Memorandum Review Meeting, in person

    - The Design Build Team will meet with the City in person to discuss and review comments on the Tech Memo
- Preliminary Design Report (PDR), and 30% Design Project Team Kick Off, virtual or in person
    - The Design Build Team will meet with the City either remotely, or in person, to kickoff Phase 2 as a result of final approved PDR. The purpose of the meeting will be to align the team on project direction, discuss early project risks and mitigation strategies, permitting strategy, and next steps
- PDR Project Team Presentation, virtual or in person
    - The Design Build Team will meet with the City via virtual meeting, or in person, to review the results of the PDR and discuss risks, budget, and schedule
- 30% Design Project Team Presentation, virtual or in person
    - The Design Build Team will meet with the City via virtual meeting, or in person, to review the results of the 30% design phase and discuss risks, early procurement items, budget, and schedule
- 60% Design Project Team Kick Off, virtual or in person
    - The Design Build Team will meet with the City either remotely, or in person, to kickoff the 60% design efforts as a result of approval of the 30% design. The purpose of the meeting will be to, again, align the team on project direction, discuss early project risks and mitigation strategies, permitting strategy, and next steps
- 60% Design Internal Review , virtual
    - The Design Build Team will meet via virtual meeting to review the 60% design deliverables and prepare for presentation of the design to the City
- 60% Design Project Team Presentation, in person
    - The Design Build Team will meet with the City in person to review the results of the 60% design phase and discuss risks, early procurement items, budget, and schedule. This meeting will also prepare the Project Team for delivery of Guaranteed Maximum Price (GMP), based on approval of the 60% design
- 60% Design & GMP Project Final Scope, Scheduled, and Negotiation
    - The Design Build Team will meet with the City to address city's team review comments on the submitted 60% design and GMP . The goal is to discus and ~~anegotiation~~a negotiation final scope, pricing, scheduled, risks, and early procurement
- Regional Board and DDW Permitting Agency Coordination Meetings, virtual
    - The Design Build Team will meet with the Region 5 Regional Water Quality Control Board and Division of Drinking Water staff assigned to the project to review the design intent at the 30% and 60% design level to align the agencies with the project direction and address any concerns early in the project to minimize schedule interruptions by agency approval. After completion of the first meeting, the Report of Waste Discharge and Title 22 Engineering Reports will be drafted and submitted in draft form to the agencies. After completion of the second meeting, the reports will be updated to draft/final and submitted for permit approval.
- Federal Emergency Management Authority (FEMA) Agency Coordination Meetings, virtual
    - The Design Build Team will meet with FEMA, if required based on our floodplain analysis, to discuss the potential requirement for a CLOMR and LOMR and work with the agency to determine sequencing, schedule, and next steps
- CEQA Coordination Meetings, virtual
    - The Design Build Team will meet with the environmental permitting representatives to support the CEQA application process.

Deliverables:

- Project Decision & Action Item Log, Excel format
- Alternative Analysis, PDR, 30%, 60% Presentations, PowerPoint Format

QUALITY MANAGEMENT

The Design Build Team will perform quality control and quality assurance throughout the design phase of the project. A Quality Assurance/Quality Control (QA/QC) officer will be designated within the firm that is responsible for implementation of the QA/QC plan. The scope items that are performed by the Design Build Team will be peer reviewed internally by Schneider Electric prior to submission to the City. This process ensures a high level of precision and completion on deliverables prior to release to the various project teams.

For each client deliverable presented for review, Design Build Team will create a Bluebeam Studio review session, for all City and City Representatives (as applicable) to provide comments, track Design Build Team responses, and document closeout of all comments and changes. City and City Representatives will have 2 weeks to review and provide comments for each phase deliverable.

Deliverables:

- Comment and response logs, available upon request

GENERAL ASSUMPTIONS AND EXCLUSIONS

1. No architectural or MEP engineering services are included at the time of proposal based on the fact that a new operations or maintenance building is currently not in the project scope. It is anticipated that the current operations and maintenance buildings will be protected in place. Prefab options will be explored for a workspace and lab to supplement existing building.
2. The scope of facilities described under the heading “Water Reclamation Facility (WWTF) Project Elements,” above, is the basis for estimating our design effort. If the Preliminary Design phase of the project results in changes to this assumed scope, the design and construction support efforts may change, and a scope amendment may be required.
3. Additional assumptions and limitations are provided under corresponding tasks below.
4. Plan checks by the Building Department, Regional Board, DDW, and FEMA will be conducted in accordance with the overall project schedule for design and implementation. Comments from the Building Department will be limited to applicable building, plumbing, fire, and electrical code matters.
5. ADA compliance design will not be required for the facilities included in this scope.
6. Design for repurposing existing effluent storage pond to proposed influent equalization basin is assumed to be limited to rough and finished grading, levees, liner, pipe penetrations for inlet and pump suction, associated pumping and filtering facilities, access roads, and fencing.
7. Operations and Maintenance manuals will be prepared by equipment suppliers, separate from this scope.
8. Drawings will be prepared in a current version of AutoCAD Civil3D and will be based on Consultant standard drawing format, layering, and title blocks. Use of BIM or 3D design not included.
9. Technical specifications will be based on consultant boilerplate specifications, with City preferences and standards incorporated. Front-end specifications are assumed to not be required for the project.
10. Environmental clearance and permitting will be by ESCO. and coordinated with the design. .

11. Perimeter landscaping, hardscaping, or decorative fencing or walls not included or by others.
12. City WWTF Operations Team will have the opportunity to assist ESCO with collaborative development of the Project Definition Report, by participating in workshops and through review/comment of deliverables. In addition, collaboration and engagement with operations team on different controls strategies.
13. Any partnering activities would be addressed as part of the bi-weekly meetings. We can optionally add additional scope for separate formal partnering sessions.
14. Sites for facilities will be relatively flat or moderately sloped sites that can be graded for construction of facilities without retaining walls or other special grading features. Drainage will sheet flow off the sites to surrounding lands or discharge from on-site storm drains to outlet structures at the perimeter.
15. Geotechnical recommendations, prepared by others, will allow for slab-on-grade foundations without special foundation measures such as piles.
16. If the water balance determines that additional effluent disposal by spray, leach field, or similar is required, an additional service proposal can be provided for the design of these systems. They are not included in the base scope.
17. Design scope assumes that all improvements included in this package will be prepared as a single set of plans and specifications with a limited number of early procurement packages.
18. Design fees assume the use of a packaged MBR treatment system manufactured by Cloacina LLC. Phase 2 and 3 design fees could increase by up to 50-100% if a cast-in-place MBR system is selected by the City.
19. Meeting agendas and notes will be the responsibility of ESCO as host of the meeting schedule for the overall project.

SPECIFIC WWTP IGA ENGINEERING SCOPES OF SERVICES

PHASE 1 – ALTERNATIVES EVALUATIONS AND PROJECT DEFINITION

During Phase 1, ESCO will coordinate and manage team members performing multiple design, regulatory, and permitting professional services. The work will be conducted so that feedback from all Phase 1 regulatory and permitting analyses will be incorporated into the Alternative Analysis, Technical Memo, and Schematic Design providing for cohesive technical deliverables.

Wastewater Treatment Facility Design - WWTF Design Phase 1

Overview of Tasks:

- Data and documentation gathering and review
- Site investigation including preliminary topographic and boundary survey as well as geotechnical investigation of subsurface conditions and infiltration testing for any storm water post construction requirements the project may face
- Alternatives analyses regarding WWTF technologies, construction type, location, and phasing approaches
- Review of permitting and regulatory drivers and constraints set forth by the Regional Water Quality Control Board, Division of Drinking Water, CEQA, CalTrans, FEMA, and the local building authority
- Project funding strategy, including potential customer rate impacts
- Develop technical design memoranda to describe project constraints, design criteria, and alternatives available to the City
- Preliminary schedule development
- Develop construction scope, schedule, and budget
- Complete a GMP estimate through repeated cost modeling

Task 1 – Phase 1 Topographic and Record Boundary Survey for Design Approach

ESCO will provide a limited topographic survey of the approximate limits as shown in green in Figure 1 and ESCO will plan to perform survey of access road and adjacent topography and boundary as part of overall WWTF survey efforts to prepare for potential access road improvements required to construct/upgrade WWTF facilities, using a combination of aerial and field mapping. The aerial mapping will be augmented by field survey to locate significant features and be completed by conventional techniques. During the Phase 1 design approach, the surveying effort will be limited to setting aerial control, locating three to four survey monuments and best fit pin the record boundary line work to the mapping, and a limited amount of significant feature measurements to be collected at the engineer's direction. For budgeting purposes, we have included three (3) ten-hour days, including mobilization, to complete this limited field work.

The survey mapping will be constrained horizontally to the California Coordinate System of 1983 (CCS83), Zone 2 projection and vertically to the North American Vertical Datum of 1988 (NAVD88). Survey control stations will be set near the edges of the project mapping limits so that they are available for construction survey staking control and likely will remain through construction and the next phases of design. The compiled mapping will be completed with a mapping scale of 1" = 20' with a one-foot contour interval.

A preliminary title report(s) will be needed to provide further research tools and a better understanding of the existing parcels and easements. For budgeting purposes, we assume that the title report(s) will be provided by the owner and that no more than four (4) easements will need to be plotted.

The mapping will be provided as a Civil 3d 2024, or newer, survey base map drawing file with digital terrain model (DTM) surface. For budgeting purposes, we have assumed that sufficient monuments exist, no material discrepancies will be discovered, and that filing a Record of Survey or Corner Record will not be required, including in the event that a Record of Survey is required according to Section 8762 of the California Business and Professions Code (BPC) or rehabilitating of controlling monuments used as part of this survey is required due to their condition being less than permanent and durable and other requirements specified by Section 8771.6 of the BPC. However, if as a part of the survey for this project, a Record of Survey or Corner Record is required, or existing monuments are found and determined to need re-establishment to comply with state law the client agrees to authorize additional scope and budget to satisfy these requirements.

Deliverables:

- Civil 3D 2021 or newer Survey Base Map, DWG format

Task 2 – Design Criteria and Alternatives Analysis

Task 2.1 - Technical Design and Alternatives Analysis Memorandum

Drafting the Technical Memorandum involves creating a summary document that outlines the initial design concepts, constraints, and alternative approaches for the project. This report serves as a crucial communication tool between stakeholders and team members. The memo will include design criteria, results of floodplain analysis, results of environmental and wastewater discharge permitting analyses, high level summaries of alternatives, and Class 4 AACE cost estimate. The memo will be presented to the City for approval to proceed.

The memo will include the following items:

- Development and presentation of facility design criteria (flows, loads, volumes, sizes, and configuration)
- Establishment of future expandability requirements for the facility
- Location and treatment technology alternatives analysis, including evaluation of repurposing existing facilities to integrate hydraulically and confirm capacity for the intended purpose. The alternatives analysis includes membrane treatment technologies (does not include ceramic or flat sheet), disinfection processes (e.g., in vessel UV, in channel, and chlorine), solids handling and dewatering, and screening for future odor control with a carbon technology.
- Preliminary approach
- Capital cost estimate (Class 4 AACE), provided as an attachment and summarized in the report

Deliverables:

- Technical Design Criteria and Alternatives Analysis Memorandum, PDF format

Task 2.2 - Schematic Design

Develop the schematic design to 10% design completion. The purpose of the schematic design is to coordinate the configuration, layouts, sizes, and major features of the overall design with the City and project team; optimize the project to best meet the project goals; firm up decisions; and obtain consensus on these items for the detailed design. Schematic design drawings will include the following:

- Preliminary Process Flow Diagrams
- Preliminary Hydraulic Profile
- Site plans, including identification of the footprint of future expansion to get to Buildout flow capacity.
- Major yard piping
- Building and equipment footprints and major features
- Major design criteria, equipment sizes, and features
- Existing facilities proposed for reuse and schematic design of rehab/upgrades
- Preliminary electrical single-line diagrams
- List of anticipated early procurement items

Deliverables:

- 10% Design Package, PDF format

Regional Water Quality Control Board – RWQCB Phase 1:

ESCO originally proposed completing the following activities during Phase 1 of the project:

Regionalization, Reclamation, Recycling, and Conservation Report

This report will address the Central Valley Regional Water Quality Board's (Central Valley Water Board) Resolution No. R5-2009-0028 in support of regionalization, reclamation, recycling, and conservation for wastewater treatment plants. Submittal of this report to Central Valley Water Board executive management is needed before Board management will advance discussions with the City regarding the need for an NPDES permit to allow WWTF effluent discharge to Sutter Creek. Resolution No. R5-2009-0028 requires that the report address the following elements.

a. Efforts that have been taken by the City to promote new or expanded wastewater recycling and reclamation opportunities and programs.
b. Water conservation measures promoted by the City.
c. Regional wastewater management opportunities and solutions (e.g. regionalization) available to the City.
d. An evaluation of wastewater reclamation and land disposal as alternative disposal methods to a surface water discharge.

It will be critically important to explain in this report why remaining a part of the Amador Regional Sanitation Authority (ARSA) is not feasible and why the City seeks to construct a new tertiary WWTF that would discharge effluent to Sutter Creek.

NPDES Permitting Technical Memorandum

This technical memorandum will characterize the projected WWTF effluent quality (e.g., conventional pollutants, temperature, priority pollutants) with the new treatment processes compared to expected NPDES permit effluent limitations and reclamation permit requirements, and receiving water quality, which can affect NPDES permit limitations, and other anticipated permitting requirements. Key elements of this task are listed below.

a. WWTF Effluent and Receiving Water Quality Characterization: A characterization of WWTF effluent and Sutter Creek water quality is necessary to support design of the new WWTF, as well as support NPDES permitting and CEQA compliance processes to identify the effects of the WWTF discharge on Sutter Creek water quality and beneficial uses. The data will assist in identifying constituents (e.g., trace metals) or parameters (e.g., temperature) that may pose a challenge for NPDES permit compliance and, thus, require additional investigation into source control options or specific treatment technologies to be incorporated into the WWTF design.
b. WWTF Effluent Quality Projections: Characterizing existing WWTF effluent quality establishes the baseline condition, with the expectation that the new WWTF effluent quality will be no worse, and likely better, for many constituents due to improved removal efficiencies.
c. Anticipated Effluent Limitations: The Central Valley Water Board makes determinations regarding the need for water quality-based effluent limitations in an NPDES permit through a reasonable potential analysis (RPA). Completing an RPA will be informative because it gives the Project Team advance notice of anticipated NPDES permit limitations, which can be useful for determining the feasibility of the surface water discharge and/or if treatment compliance strategies need to be developed for the project.

Environmental Opportunities and Constraints Technical Memorandum

This technical memorandum will address the environmental opportunities and constraints related to the siting of the new WWTF, focused on potential impacts on biological resources, a listing of environmental permits that may be required for construction of the new outfall in Sutter Creek (e.g., Clean Water Act [CWA] Section 404 permit), an overview of the CEQA compliance process, and a timeline and estimated cost for environmental permitting and CEQA compliance. Key elements of this task are listed below.

a. Site visit conducted by ESCO biologists to visually survey for biological resources and potential impact-related issues.
b. Identify federal and state endangered plant, fish, and wildlife species that could be affected by project construction and operation.

c. Generate a list of potentially relevant environmental permits, such as a CWA Section 404 permit from the U.S. Army Corps of Engineers (USACE) and a CWA Section 401 water quality certification from the Central Valley Water Board. It is expected that any outfall proposed would require a Lake and Streambed Alteration Agreement (LSAA) from the California Department of Fish and Wildlife (CDFW).
d. Develop a preliminary permitting and CEQA compliance schedule and cost estimate.

Completing an environmental opportunities and constraints analysis allows for identifying potential effects of the project, which allows the Project Team to make refinements to the project to reduce or avoid potential adverse environmental effects that would otherwise require costly mitigation or could not be mitigated to a less-than-significant level (i.e., be significant and unavoidable).

The detailed scope of work presented below for the proposed Phase 1 activities has now been streamlined, because ESCO has been informed that Central Valley Water Board staff are in support of the City's desire to construct and operate a new WWTF that would discharge Title 22, tertiary-treated effluent into Sutter Creek.

Task 1 - Regionalization, Reclamation, Recycling, And Conservation Technical Memorandum

The Central Valley Water Board adopted Resolution No. R5-2009-0028 in support of regionalization, reclamation, recycling, and conservation for wastewater treatment plants.

This resolution states that wastewater treatment plants seeking a new NPDES permit shall provide information regarding regionalization, reclamation, recycling, and conservation upon request by the Central Valley Water Board and identifies the type of information to be supplied by the discharger. All wastewater dischargers requesting an NPDES permit must provide an evaluation of wastewater reclamation and land disposal as alternative disposal methods. Central Valley Water Board management staff require this report be prepared and submitted by potential surface water dischargers wanting a new NPDES permit prior to allowing NPDES permitting staff to work with the discharger on a new permit (e.g., hold meetings with discharger, review a report of waste discharge or NOI for coverage under the Municipal General Order).

ESCO will prepare a technical memorandum that addresses the following major topic areas (with anticipated length of discussion in parentheses).

1. Introduction (1/2 page)
2. Background (1 page)
    a. Existing Wastewater Treatment Facilities
    b. Planned Uses and Development
    c. Existing Wastewater Treatment Facilities
3. Regionalization Opportunities and Constraints (1-2 pages)
4. Reclamation and Recycling Opportunities and Constraints (1-2 pages)
    a. Land Application
    b. Indirect Potable Reuse
    c. Direct Potable Reuse
    d. Local Water Transfer or Exchange
5. Water Conservation Activities (1/2 page)
6. Best Practical Treatment and Control (1/2 page)
7. Conclusions (1/4 – 1/2 page)

Task 1.1 - Introduction and Background

ESCO will prepare the “Introduction” and “Background” sections of the report using information ESCO has learned through project development, supplemented with information provided by the City regarding planned development and buildout of the WWTF.

Task 1.2 - Reclamation and Recycling Opportunities

ESCO will describe reclamation and recycling opportunities, with input from the City and Project Team.

Task 1.3 - Regionalization Opportunities and Constraints

ESCO will describe the regulatory, socioeconomic, and physical factors that make regionalization of the City’s wastewater treatment not feasible, with input from the City and the project team. This section will briefly address why remaining part of ARSA is not recommended and why the City instead seeks to construct a new tertiary WWTF that would discharge effluent to Sutter Creek.

Task 1.4 - Water Conservation Activities

In collaboration with the City, ESCO will describe the City’s current and planned water conservation activities.

Task 1.5 - Best Practical Treatment and Control

Central Valley Water Board Resolution No. R5-2009-0028 regarding regionalization, reclamation, recycling and water conservation states the following:

> *“State and federal antidegradation policies require Dischargers to demonstrate that degradation from new or expanded discharges are necessary, and to implement best practicable treatment or control of the discharge necessary to maintain the highest water quality consistent with maximum benefit to the people of the State. Regionalization, reclamation, recycling and conservation may enhance the implementation of these policies.”*

In the state and federal regulations, achievement of “best practical treatment or control” (BPTC) is defined in terms of performance and maintenance of water quality standards via achieving appropriate NPDES permit limitations, rather than specific treatment technologies. ESCO will describe how the term BPTC is addressed in state and federal water quality regulations and policy, and the extent to which the treatment technologies at the existing and proposed new WWTF provide BPTC.

Task 1.6 – Technical Memorandum

ESCO will compile the information developed in Tasks 1.1 through 1.5 a technical memorandum. ESCO will provide the City and Project Team a draft technical memorandum for review and comment. ESCO will then prepare a final technical memorandum for submittal to the Central Valley Water Board.

Task 1.7 – Central Valley Water Board Meeting

ESCO will participate in an in-person meeting with Central Valley Water Board executive management at their Rancho Cordova, CA office to convey information contained in the technical memorandum, and solicit questions and input regarding the level of detail in the technical memorandum relative to that needed to advance obtaining an NPDES permit for the proposed WWTF.

Assumptions:

- The above scope and budget assumes that all information ESCO requests from the City and project team in support of the report preparation will be adequately provided in a timely manner.

- The scope and budget is limited the number of rounds of review specified above.
- Central Valley Water Board requests for revisions to the technical memorandum beyond those editorial in nature for clarity, will require additional budget beyond that identified for this task.

Deliverables:

- Draft Technical Memorandum
- Final Technical Memorandum

Task 2 – Phase 1 NPDES Permitting Technical Memorandum

ESCO will prepare a technical memorandum that defines NPDES permitting considerations for a new surface water discharge from the City WWTF to Sutter Creek. This will be similar to the technical memorandum RBI prepared in February 2012. The technical memorandum addressed the following topics.

- Designated beneficial uses of Sutter Creek that must be protected
- Analysis of critical design creek flows for dilution credit
- Reasonable potential analysis of WWTP effluent data to identify potential NPDES permit effluent limitations to protect beneficial uses
- Likely effluent and receiving water monitoring requirements
- Process for obtaining an NPDES permit and estimated cost
- Penalties for non-compliance with the NPDES permit
- Identify important NPDES Permit compliance challenges for application of chlorination as an effluent disinfection method. Compare to UV disinfection approach in terms of regulatory compliance benefits and risks and regulatory validation requirements.

ESCO will prepare an updated version of the February 2012 technical memorandum. The update will address several of the above-listed topics. Secondary effluent produced at the City's WWTF would not represent effluent discharged following tertiary filtration and disinfection upgrades necessary to support surface water discharge. Therefore, updating the reasonable potential analysis is not warranted. Instead, ESCO will review NPDES permits for similarly sized and situated WWTFs (e.g., Jackson, Placerville, Lathrop, Mountain House) that use tertiary-level treatment (e.g., membrane bioreactor) discharge to surface water and communicate effluent limitations and permit conditions issued to such facilities, relative to treatment technology utilized. ESCO will identify compliance strategies utilized to ensure compliance with such effluent limitations.

The technical memorandum also will include current effluent and receiving water monitoring requirements based on current Central Valley Water Board plans and policies. Finally, the process for obtaining an NPDES permit will be updated to reflect documentation needed to satisfy CEQA and Central Valley Water Board policies, as well as effluent and receiving water data needs. An estimated timeline and cost for each process component will be provided. No updates are needed to address critical design creek flows because all available data (for water years 1936–41 and 1961–80) was compiled previously.

ESCO will provide the City and the project team a draft technical memorandum for review and comment. ESCO will then prepare a final technical memorandum for submittal to the Central Valley Water Board.

Deliverables:

- Draft Technical Memorandum in PDF
- Final Technical Memorandum in PDF

Task 3 - Environmental Opportunities and Constraints Technical Memorandum

Task 3.1 - Site Survey

ESCO biologists will conduct a reconnaissance-level survey of potential locations for the new WWTF and outfall to evaluate site conditions and presence of habitat for terrestrial and aquatic biological species of concern, with the purpose of identifying potential environmental impacts to biological resources from construction and operation of the project.

Task 3.2 - Special-Status Species Research

ESCO will conduct a literature review and database search to determine the potential for presence of special-status plant and wildlife species or their habitat in the project area, including the following sources.

- CDFW's California Natural Diversity Database
- USFWS Information for Planning and Consultation Species List
- California Native Plant Society Electronic Inventory of Rare and Endangered Plants of California

Task 3.3 - Outfall Permit Identification

ESCO will develop a list of resource agency approvals and regulatory permits that may be necessary for the construction and operation of a new WWTF outfall in Sutter Creek.

Task 3.4 - Technical Memorandum

ESCO will compile information developed in Tasks 3.1–3.3 into a technical memorandum. The technical memorandum also will address CEQA compliance for the project, provided by ESCO, and provide an estimated schedule and budget for securing the permits needs for outfall construction and operation, and for completing the CEQA compliance process.

Assumptions:

- The scope and budget for this task assumes one (1) site visit by two (2) ESCO biologists. However, if certain special-status plant species have the potential to be present at the site, additional blooming period surveys may be required.

Deliverables:

- Draft Technical Memorandum in PDF
- Final Technical Memorandum in PDF

Task 4 - Effluent and Receiving Water Characterization

The Effluent and Receiving Water Quality Characterization task consists of monitoring the existing WWTF effluent and Sutter Creek to develop a data set for priority pollutants and other constituents of concern, as well as temperature, which will be used to support the Antidegradation Analysis, NOI for Municipal General Order coverage, and project EIR analyses. Data collected under this task will be evaluated to identify constituent levels that may trigger NPDES permit effluent limitations. ESCO will initiate data collection under Phase 1, as follows. Completion of data collection, the data evaluation

consisting of a “reasonable potential analysis,” and associated technical memorandum will be completed in Phase 2.

Task 4.1 - Priority Pollutants and Other Constituents of Concern

The Central Valley Water Board has established a list of pollutants that it requires Central Valley municipal wastewater dischargers monitor for one year within each NPDES permit cycle. ESCO anticipates that quarterly sampling of the WWTF effluent and Sutter Creek will be needed, which is the typical sampling frequency required by the Central Valley Water Board for similarly sized WWTFs. ESCO will provide the following services under this task.

1. The ESCO Project Manager and an ESCO Project Scientist will conduct a site visit to WWTF and Sutter Creek to identify sample collection locations.
2. ESCO will prepare a brief Sampling and Analysis Plan defining sample collection locations, frequency, and methods; analytical laboratories, methods, and detection limits; and QA/QC protocols.
3. An ESCO Project Scientist will obtain sample bottles, collect samples from the WWTF and Sutter Creek, and arrange for sample delivery to the contract laboratory. ESCO will use its field meters to measure electrical conductivity, temperature, and pH while onsite each month, so that sufficient data is collected to calculate ammonia effluent limitations. Sampling events will be coordinated with retrieval of temperature logger data under Task 4.2.
4. ESCO will review laboratory reports to verify all required analyses are completed, identify potential QA/QC issues, and determine the need for any resampling.
5. ESCO will compile data into an MS Excel database in the standardized format used by the Central Valley Water Board when preparing the Municipal General Order NOA and NPDES permits.

Task 4.2 - Temperature Data Collection

Collecting WWTF effluent and Sutter Creek temperature data is necessary to support the NPDES permitting process and the CEQA EIR impact analyses on water quality and aquatic biological resources of the creek. A minimum of 12 months of data collection is recommended. ESCO will provide the following services under this task.

1. ESCO will monitor effluent and creek temperatures on an hourly frequency using HOBO Temperature Loggers (Onset Corporation ®). These data loggers are battery-powered, research-grade instruments that are widely used for monitoring water temperatures.
2. As part of the site visit to establish monitoring locations in Task 4.1, ESCO will establish the temperature monitoring locations.
3. ESCO will deploy the loggers during the initial site visit and, thereafter, retrieve data from the loggers once per month for four months (see “Assumptions” below).
4. ESCO will offload data from the shuttle to the company server, review the data for abnormalities (e.g., outliers, air temperature readings), and compile the data into a temperature database (MS Excel or Access) to facilitate future data analyses.

Assumptions:

- Given that Task 4 in Phase 1 is planned to last 5 months, the fee in Phase 1 assumes that only one round of sampling under Task 4.1 will be completed, and there will be up to four trips to the site for temperature data retrieval under Task 4.2. Continuation of data collection to complete a full 12 months by ESCO will be contingent on a contract amendment to include Phase 2.

- Laboratory analytical costs are estimated based on ESCO's experience conducting similar studies for other Central Valley Water Board dischargers. Actual costs will be determined as part of developing the Sampling and Analysis Plan, and the fee in Phase 1 may need to be adjusted accordingly.

Deliverables:

- Initial databases with effluent and receiving water characterization and temperature data

California Environmental Quality Act – CEQA Phase 1:

Task 1 - Biological Resources Investigation

ESCO will conduct a desktop survey to review information on potential biological resources at the project site. Data sources may include U.S. Geological Survey quadrangle maps, U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC), the California Natural Diversity Database (CNDDB), species data compiled by the California Native Plant Society (CNPS), and other technical literature related to the biotic resources in the project vicinity. ESCO will coordinate with the City to determine if existing documents, studies, and reports are available that provide relevant information related to biological resources in the project area. ESCO will also review aerial photographs of the area, if available, to identify potential habitat types, water resources, presence of special-status species, and other biological constraints.

Task 2 - Cultural Resources Investigation

The potential for presence of potential historic resources and buried archaeological sites will be evaluated at a preliminary level by conducting a desktop assessment using relevant maps and documents (e.g., archaeological studies, geologic reports, Quaternary geologic maps, soil surveys). ESCO will develop an Area of Potential Effects (APE) map for use in evaluating cultural resource impacts for the project area.

The APE will include the current WWTF as well as City-owned parcels (018-002-031 and 018-002-032) in an area bounded by Mahoney Mill Road, Highway 49 to the west, the residences behind Oro Madre Way to the east, and Sutter Ione Road to the north, which have been identified as optional sites to locate portions of the WWTF expansion within. The APE will be submitted for review and confirmation by the City.

Upon approval of the APE, ESCO will conduct a record search at the North Central Information Center (NCIC) of the California Historical Resources Information System at California State University, Sacramento, in Sacramento. This review will identify any previously recorded cultural resources within ¼ mile of the APE in order to (1) determine whether known cultural resources have been recorded within or adjacent to the project area; (2) determine whether any cultural resources studies have previously been conducted within or adjacent to the project area; (3) assess the likelihood of unrecorded cultural resources based on historical references and the distribution of environmental settings of nearby sites; and (4) develop a context for identification and preliminary evaluation of cultural resources. NCIC record search results are usually received within 4 weeks of the request for the search.

Task 3 - CEQA Review

ESCO will conduct a desktop review of the resource topics included in the CEQA Guidelines Appendix G Environmental Checklist to identify potential for significant environmental impacts. We will consult

Federal Emergency Management Agency (FEMA) flood insurance rate maps to identify which portions of the project area are within the 100-year floodplain. To evaluate the potential for hazardous materials to be located within or near the project site, ESCO will conduct a search of the Department of Toxic Substances Control's (DTSC) EnviroStor database (https://www.envirostor.dtsc.ca.gov/public/) and consult DTSC's Cortese List to identify any known contamination sites within a 0.25-mile buffer of the potential project sites. Noise and air quality requirements will be reviewed to determine appropriate setback distances from sensitive receptors adjacent to the project area. We will also identify other constraints requiring additional analysis and will include recommendations for how to address these constraints. In addition, ESCO will identify responsible agencies and other federal, state, and local agencies that may have jurisdiction and/or approval authority over part or all of the project or project site.

We will also review the City's general plan, water and wastewater planning documents, and other relevant materials provided by the City.

Task 4 - Environmental Constraints Analysis Report

ESCO will prepare a draft environmental constraints analysis report that describes the findings with regard to biological resources, cultural resources, CEQA resource topics, and the appropriate level of CEQA evaluation. The report will include recommended next steps, such as a site visit and field surveys, that could help to identify project modifications that might avoid and/or minimize potential impacts to sensitive biological and cultural resources. ESCO will submit a draft report to the City for review.

If desired, ESCO will attend a virtual meeting with the City to present an overview of the environmental constraints analysis and our proposed approach for achieving CEQA compliance in an efficient manner based on previous experience.

Following review and comment by the City, ESCO will revise the report and provide a final version.

Assumptions:

- No site visit or field survey will be conducted under this Phase 1 portion of the scope of work.

Deliverables:

- Draft and revised environmental constraints analysis report (electronic)

Federal Emergency Management Agency – FEMA Phase 1:

The current floodplain and floodway limits include a FEMA Zone A, adjacent to the wastewater treatment facility (WWTF), and Zone AE (with a floodway overlay) at the upstream limits of the WWTF. The purpose of this study is to perform the hydrology and hydraulic modeling to determine the floodplain limits adjacent to the existing WWTF and determine if there is a tie in upstream at the Zone AE limits shown in the Figure below.

Task 1 - FEMA Model Request, Background Review, and Field Review

Task 1.1 - FEMA Model Request

The ESCO team will request the effective FEMA hydrology and hydraulic analyses from the FEMA library.

Task 1.2 - Review Background Information

ESCO will review all available background material, including the FEMA models requested in Task 1.1, for the project. This will include reviewing available as-built plans for the culverts and roadway design provided by others.

Task 1.3 (Optional) - Field Review

ESCO will field review the project location to determine Manning's roughness coefficients and any additional characteristics of the project site which would need to be included in the hydraulic model.

Assumptions:

- A quality FEMA model is available from the FEMA library.

Deliverables:

- A summary of the background and field reviews will be included in the Final Hydraulic Report.

Task 2 - Hydrology and Hydraulic Analyses

Task 2.1 – Hydrology

ESCO will create hydrographs with a peak flow equivalent to that of the FEMA published 100-year discharge for use in the 2D hydraulic model. ESCO will do this by creating a HEC-RAS 2D point precipitation model.

Task 2.2 - Existing Conditions Hydraulic Model Zone A

ESCO will create a 2D hydraulic model of the existing conditions at the project site based on existing topographic information (LiDAR), and as-built information for the existing bridge using HEC-RAS version 6.5 or newer.

Task 2.3 - Existing Conditions Hydraulic Model Zone AE

ESCO will determine if the Zone AE is within the WWTP right of way and if mapping updates are needed to remove it from the Zone AE. If mapping updates are needed, a separate task order will be required.

Assumptions:

- The discharges determined by FEMA are sufficient for this analysis. Determining the peak discharges is not included in this scope of work.
- Available LiDAR data will be used as the basis for terrain data within the HEC-RAS modeling.
- As-built plans provided by others.
- The proposed WWTF upgrades do not change any grading within the floodplain/floodway limits.
- No FEMA submittals, Conditional Letter of Map Revision (CLOMR), Letter of Map Revision (LOMR) or formal No-Rise analysis will be completed as part of this scope of work.
- No 500-year floodplain modeling
- Refinement of scope and fee for Phases 2A and 2B will occur at end of Phase 1, based on outcome and accuracy of assumptions above.

Deliverables:

- Details of the hydraulic analysis will be included in the Preliminary and Final Hydraulic Reports completed in Task 3.

Task 3 - Preliminary and Final Hydraulic Reports

Task 3.1 - Preliminary Hydraulic Report

ESCO will complete a Preliminary Hydraulic Report documenting the hydrology and hydraulic results for the existing conditions, and up to two proposed alternatives.

Task 3.2 - Final Hydraulic Report

ESCO will update the Preliminary Hydraulic Report to a Final Hydraulic Report, incorporating any comments on the Preliminary Report and documenting the results of the hydrology and hydraulics for the final proposed condition modeling.

Assumptions:

- The proposed project will not result in an increase in the water surface elevation and a “no rise certification”, Conditional Letter of Map Revision (CLOMR), or Letter of Map Revision (LOMR) will not be required. If a no rise, CLOMR or LOMR are required, this would require a separate task order.

- Preliminary hydraulic modeling results can only be prepared after receipt of FEMA library information for the existing hydrology and hydraulics.

Deliverables:

- Preliminary and Final Hydraulic Report will be provided via electronic mail. If FEMA's findings indicate that additional study is necessary, ESCO will address this requirement during Phase 2.

PHASE 2 – DETAILED DESIGN

During Phase 2, ESCO will coordinate and manage team members performing multiple design, regulatory, and permitting professional services. The work will be conducted so that feedback from all Phase 2 regulatory and permitting analyses will be incorporated into the Preliminary Design Report, 30% Design, and 60% Design, providing for cohesive technical deliverables.

Waste Water Treatment Facility Design - WWTF Design Phase 2:

Overview of Tasks:

- Perform detailed topographic survey
- Complete the Project Definition Report (assume 15% design)
- Develop the design to 30% and 60% completion (design progression from 60% to 100% is part of the construction in Phase 3)
- Prepare permitting applications and supporting reports
- Preparation of Guaranteed Maximum Price (GMP)

Task 3 – Topographic and Boundary Survey for Detailed Design

During Task 1 and phase 2 of the project, we will collect measurements to refine the retracement of the property boundary and measurements within the treatment plant at the direction of the engineer as needed for further informing their design and engineering. This includes pipe inverts, major structures, drainage structures, equipment pads, and other improvements. This does not include survey of the interior of equipment buildings. For budgeting purposes, we have included up to four (4) ten-hour days, including mobilization, to complete these measurements. These measurements will be compiled and incorporated into the existing Civil 3d survey base map.

Deliverables:

- Civil 3D 2021 or newer Survey Base Map, DWG format

Task 4 - Existing Utility Research – Utility 'A' Letters

We will use the Amador County's Underground Service Alert web portal to obtain a list of utility providers and operators within and adjacent to the project site. We will contact and request utility information and atlas maps from each of the utility companies listed as part of this inquiry via certified return receipt mailers, or as indicated by their preferred contact method if provided through the Underground Service Alert inquiry. We will document the correspondence process and share with the client the information we obtain. The information returned from the utility companies showing the location of existing utilities will be digitized and shown with the existing utility base map. We are assuming that up to 5 utility companies will require contact and have utility infrastructure in the project area that should be shown on the existing utility base map. The digitized record utility information will be married and resolved with the survey measurements of existing utilities and utility markings.

Deliverables:

- Utility 'A' Letters, PDF format

Task 5 – Preliminary Design Report Development

Drafting the Preliminary Design Report (PDR) involves creating a comprehensive document that outlines the initial design concepts, requirements, and considerations for the project. This report serves as a crucial communication tool between stakeholders and team members. The report will include

purpose and scope, requirements, standards, design concept and alternatives, challenges, and risks. The report and schematic design, below, will be presented to the City for consideration for Approval to Proceed.

The PDR will include the following items:

- Development and presentation of facility design criteria (flows, loads, volumes, sizes, and configuration)
- Target effluent quality for the selected treatment technology and configuration demonstrating ability to comply with the anticipated discharge requirements
- Evaluation of alternatives
- Up to two alternatives for treatment system locating, sizing, and configuration, including the footprint and connections required for expanding the WWTF in the future to the identified Buildout flow. The alternative analysis will be based on FEMA outcomes, geotechnical studies, and effluent requirements, with consideration given to the most feasible options to minimize additional costs.
- Up to two alternatives for WWTF technology, including cast-in-place and packaged membrane bioreactor systems, considering location, size, cost, and future expansion.
- Evaluation of opportunities to reuse/repurpose existing structures
- Up to two alternatives locating and hydraulically configuring the site influent lift station
- Schematic drawings (listed in Task 2.2 above)
- Recommendation of preferred alternative based on feasibility, affordability, and risk
- Preliminary construction sequencing and phasing plan demonstrating feasibility of the proposed approach
- Capital cost estimate, prepared by Project Team as an attachment and summarized in the report
- Preliminary project schedule, prepared by Project Team as an attachment and summarized in the report
- Life cycle cost estimate, prepared by Project Team, incorporating life cycle cost estimate for the MBR systems and preliminary O&M staffing estimates supported by the City's operations staff
- Identification of value engineering opportunities to be further examined collaboratively as the design progresses

Deliverables:

- Draft Preliminary Design Report, PDF format
- Final Preliminary Design Report, PDF format

Task 6 – 30% Design Preparation

Upon Approval to Proceed by the City as a result of approval of the PDR, the Design Build Team will develop the Design Documents to 30% design completion. Preparation of a table of contents for technical specifications will be provided with the 30% submittal. All major drawing sheets will be included with this submittal to convey the overall project direction. The 30% design package will be presented in a design review meeting.

Deliverables:

- Draft 30% Design Package, PDF format
- Final 30% Design Package, PDF format

The following drawings will be submitted during this phase:

1. Title Sheet	13. Overall Yard Piping Plan	25. Placeholder Sheet X of X for Effluent Dispersal
2. General Notes	14. County Standard Details, Sheet X of X	26. Mechanical Details, Sheet X of X
3. Legend, Abbreviations, and Symbology	15. Civil Typical Details, Sheet X of X	27. Structural Notes
4. Process Design Criteria	16. Civil Details, Sheet X of X	28. Structural Abbreiviations, Legends, Symbology
5. Process Flow Diagram	17. Equipment and Pipe Tables	29. Overall Structural Site Plan
6. Overall Site Plan	18. Overall Mechanical Plan	30. Electrical Notes
7. Demolition Plan - Overall	19. Influent Liftstation Plan & Sections, Sheet X of X	31. Electrical Abbreviations, Legends, Symbology
8. Demolition Plan - WWTP Area	20. Influent Equalization	32. Overall Electrical Plan
9. Demolition Plan - Equalization Pond	21. Membrane Bioreactor Plan & Sections, Sheet X of X	33. Overall Single Line Diagram
10. Demolition Plan - Temporary Facilities	22. Solids Handling Plan & Sections, Sheet X of X	34. Lighting Plan
11. Overall Grading Plan	23. Odor Control Plan & Sections, Sheet X of X	
12. Pipe, Structure Tables	24. Effluent Liftstation Plan & Sections, Sheet X of X	

Task 7 – 60% Design Preparation

Upon Approval to Proceed by the City as a result of approval of the 30% design package, the Design Build Team will develop the Design Documents to 60% design completion. Preparation of draft technical specifications will be provided with the 60% submittal. All drawing sheets will be included with this submittal with the exception of some detail sheets. The 60% design package will be presented in a design review meeting for City Staff and City Representative review and comment, per procedure referenced above.

As part of the 60% design task, the Design Build Team will utilize the project team's construction and operations expertise to perform internal reviews of designs under development and provide input to maximize ease-of-construction, cost-effectiveness, and value while minimizing the cost of long-term operations and maintenance. ESCO will incorporate input into the design where appropriate.

Finally, the Design Build Team will prepare the GMP and construction schedule by information collection (such as vendor quotes) and interpreting the design intent. This coordination will include review of equipment cutsheets and quotations, procurement scope breakdowns, and other documentation as required.

Deliverables:

- Draft 60% Design Package, PDF format
- Final 30% Design Package, PDF format

Regional Water Quality Control Board – RWQCB Phase 2:

The following scope of work is provided with less detail as compared to the Phase 1 scope of work, to provide a non-binding, indicative budgetary estimate for Phase 2:

~~Task 4~~Task 4.3 - Continue Effluent and Receiving Water Quality Characterization

Continuation of balance of scope of work as described in Phase 1, Task 4.

Task 4.4 - Continue Effluent and Receiving Water Temperature Data Collection

Continuation of balance of scope of work as described in Phase 1, Task 4.

Task 4.5 - Reasonable Potential Analysis / Effluent Limitation Identification

Continuation of balance of scope of work as described in Phase 1, Task 4.

Task 5 - NPDES Permit Coverage for WWTF

ESCO will advance the NPDES permitting for the new WWTF by developing the Notice of Intent (NOI) for coverage under the Central Valley Water Board's Order No. R5-2023-0025, "Waste Discharge Requirements for Municipal Wastewater Dischargers that Meet Objectives/Criteria at the Point of Discharge to Surface Water (Municipal General Order)," and support reviewing and negotiating the terms of the Notice of Applicability (NOA) issued by the Central Valley Water Board for Municipal General Order coverage.

Task ~~5~~6 - Antidegradation Analysis

ESCO will prepare the Antidegradation Analysis, which will need to be submitted with the Municipal General Order NOI. The Antidegradation Analysis will characterize how the new WWTF effluent discharge to Sutter Creek will affect water quality downstream of the discharge and will demonstrate that the anticipated degradation is consistent with the state's Antidegradation Policy embodied in State Water Resources Control Board Resolution No. 68-16. The Antidegradation Analysis also will support the CEQA document analyses of water quality impacts.

Task ~~6~~7 - CEQA Support

ESCO will support preparation of the environmental impact report (EIR) for CEQA compliance by preparing the Hydrology and Water Quality, and Aquatic Biological Resources chapters, and other

related resource sections, of the EIR (e.g., alternatives analysis and cumulative impacts analyses for these resource categories).

Task ~~7~~8 - Outfall Permitting

Based on final design and siting of the WWTF outfall, ESCO will make final determinations for permits needed for outfall construction. Should a CWA Section 404 permit and Section 401 water quality certification be required, ESCO will prepare the applications to obtain these permits as well as the LSAA.

Task ~~8~~9 - Design Engineer Coordination

Because the WWTF discharge to Sutter Creek would be new, the Central Valley Water Board cannot issue compliance schedules for NPDES permit limitations prior to the new discharge. Therefore, ESCO will coordinate with Project Team WWTF engineers regarding NPDES permit limitations to be met by the new WWTF, so that the facility can comply with the Municipal General Order NOA upon discharge to Sutter Creek. Furthermore, ESCO wastewater engineers will coordinate with Project Team WWTF engineers to advise on PLC and SCADA programming of alarms and meters to facilitate operational compliance and the collection of all necessary effluent quality and quantity information to facilitate preparation of routine (e.g., monthly, quarterly) electronic self-monitoring reports that will be required by the NOA.

California Environmental Quality Act – CEQA Phase 2:

Task 5 - Technical Studies

Task 5.1 - Biological Resources Surveys and Report

Based on the information gathered during the desktop review in Task 1, ESCO will conduct a single reconnaissance-level field survey of the proposed project area to document the existing biological conditions. ESCO will describe the dominant habitat and characterize both botanical resources and wildlife habitat values in the project area. The reconnaissance survey will also be used to determine the potential for occurrence of special-status plants and animals, although no species-specific or protocol-level surveys are proposed. Regulated habitats, such as wetlands and other waters of the U.S./state, will be mapped in Task 5.3.

ESCO will prepare a draft report that describes existing biological conditions, including existing habitats, potential for occurrence of special-status plants and animals, potentially jurisdictional or sensitive habitats, and any other biological resources that might be of concern. The report will also describe minimization measures that would reduce impacts to sensitive biological resources. ESCO will submit a draft report to the City for one round of review and comment. Following review, ESCO will revise the report. The revised report will be used to support preparation of the CEQA document (Task 7) and environmental permitting (Task 8).

Assumptions:

- The City will coordinate site access.
- Protocol-level surveys for special-status plant and wildlife species are not included but can be provided via a contract modification.

Deliverables:

- Draft and revised biological resources report (electronic)

Task 5.2 - Wetland Delineation Report

ESCO will prepare a preliminary jurisdictional delineation report for the proposed project area. The wetland delineation will be prepared in accordance with the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the regional supplements for the Western Mountains, Valleys and Coast Region, and/or Arid West Region, whichever is most appropriate for the site location and conditions. ESCO will conduct a site visit to map wetlands and other waters of the U.S./state in the proposed project area. ESCO will prepare a draft report for review by the City. Following review, ESCO will revise and submit the wetland delineation to USACE with the CWA Section 404 application package as described in Task 8.

If requested by USACE, ESCO will organize and attend one field visit with USACE to review the wetland delineation findings. Based on feedback received from USACE, ESCO will revise the wetland delineation and submit the revised version to USACE. Under this scope of work, it is assumed that refinements to the wetland delineation would be minor and related to adjustments to report mapping or minor text edits.

Assumptions:

- Field visit with USACE to review wetland delineation, if requested

Deliverables:

- Draft and revised wetland delineation report (electronic)

Task 5.3 - Cultural Resources Survey and Report

The Native American Heritage Commission (NAHC) will be contacted to determine whether Native American sacred sites are known to be located in or near the project area and to request a list of Native American tribes that have a traditional and cultural affiliation with the project area. Note that the response from the NAHC can take 3-4 weeks. Upon receipt of the list from the NAHC, ESCO will send project notification letters to listed tribes and tribal contacts. ESCO will draft general outreach letters to solicit comments or concerns from NAHC-listed tribes, send them out on behalf of the City via email, and follow up by phone and/or email, as necessary. ESCO will participate in up to 2 hours of conference calls with the City and Native American tribes, if requested. As described in Public Resources Code Section 21080.3.1(b)(2), contacted tribes must respond

to the project notification letters within 30 days. ESCO will also send request letters to relevant historical societies or other institutions to determine if any areas of historical concern have previously been documented. Responses from historical societies are generally received within 1 month.

A cultural resources field inventory of the APE (approximately 21 acres) based on the results of the record search conducted in Task 2. Archaeologists will examine the ground surface within the direct APE by walking closely spaced transects. Trowels or hoes may be used to clear vegetation and increase ground surface visibility, if needed. If deemed warranted by the field reconnaissance, minor subsurface probing using a shovel and trowel will be performed to gain a better understanding of the subsurface conditions. A ¼-inch screen may be used to further separate potential cultural items within the soil. Any identified archaeological resources will be recorded on the standard page of the California Department of Parks and Recreation (DPR) Form 523. These will include photographs and a site map, and global positioning system data will be collected to accurately delineate the locations of all resources. DPR record updates will be prepared for any resources within the APE that had been recorded previously. Recorded archaeological resources will not be evaluated for National Register of

Historic Places (NRHP) and California Register of Historical Resources (CRHR) eligibility under this scope of work. This scope assumes that, if potentially significant archaeological resources are identified on the project property, measures will be taken to avoid impacts so that there is no need to formally evaluate their significance.

The current WWTF was constructed in 1949; therefore, it is of sufficient age to require evaluation for NRHP and CRHR eligibility. An architectural historian will visit the project area to record the facility. DPR forms will be prepared, which will include NRHP and CRHR eligibility evaluations. If available, the architectural historian will review as-built drawings or any other useful materials relating to the structures. The results of the evaluation will be incorporated into the draft Cultural Resources Assessment Report.

ESCO will prepare a draft Cultural Resources Assessment Report once the field inventory is completed. Due to the involvement of FEMA in this project, it is assumed that the project will also require review under Section 106 of the National Historic Preservation Act (Section 106), as well as CEQA. Therefore, the Cultural Resources Assessment Report will comply with the requirements of Section 106 and will be prepared according to the inventory requirements of the California Office of Historic Preservation. The report will include, at a minimum, a project description, project location, results of the records and literature searches, results of the field studies, a summary of findings (including a NRHP/CRHR eligibility recommendation for the current WWTF), and conclusions. The report will include mapping of archaeological site location data and survey coverage areas, as appropriate, and will identify built environment features.

A copy of the report will also be submitted to the NCIC.

Assumptions:

- Up to 20 Native American tribes and individuals will be contacted through tribal outreach.
- There will be no field visits with Native American tribes.
- The City will provide access to parcels 018-002-031 and 018-002-032 as well as the current WWTF facility for archaeological survey.
- The City will provide access to the project site so that the buildings may be photographed. Access to pertinent records regarding construction of the WWTF will also be provided.
- This scope assumes that no more than two archaeological resources will be recorded.
- This scope of work does not include evaluation of archaeological resources for the NRHP/CRHR, should resources be present in the direct APE that cannot be avoided by project construction. This evaluation can be provided as an additional scope item.

Deliverables:

- Draft and revised cultural resources assessment report (electronic)

Task 6 - Environmental Document

At the conclusion of Task 4, the City will determine the level of CEQA review for the project. This scope of work assumes that an IS/MND will be prepared. If a different determination is made, this scope of work and budget may require revision and augmentation.

Task 6.1 - Site Visit and Project Description

To initiate work on the project, ESCO's project management team will visit the project site along with the City's project leads. Based on the information collected during Phase I and the site visit, ESCO will

develop a project description for the CEQA evaluation. In conformance with CEQA Guidelines Section 15124, the project description will include a site location map, description of the proposed project and its goals, project features, construction methods, and long-term operations and maintenance. The project description will also include a list of responsible and/or trustee agencies with jurisdiction over the project, including local, state, and federal regulatory agencies. ESCO will submit the draft project description for review, revise it based on the comments received, and incorporate the final draft into the environmental document.

Assumptions:

- Once the project description has been finalized, any substantive changes to the proposed project may require an amendment to the work plan and budget based on work already completed that requires revision to reflect those changes.

Deliverables:

- Draft and revised project description (electronic)

Task 6.2 - Administrative Draft Initial Study

Once the project description is finalized, ESCO will prepare an IS. The IS is a preliminary analysis to identify the potential for the proposed project to result in significant environmental effects. Assuming that all impacts can be mitigated to a less-than-significant level, the IS will be combined with an MND. However, if one or more environmental impacts are identified during preparation of the IS that have the potential to be significant, preparation of an EIR may be necessary. In that case, an amendment to the scope of work and cost estimate would be required.

Consistent with the requirements of CEQA Guidelines Section 15063, the IS will include: (1) the project description developed in Task 1; (2) a description of the environmental setting; (3) an evaluation of environmental impacts using the CEQA Guidelines Appendix G environmental checklist; (4) feasible mitigation measures that will reduce any significant impacts to a less-than-significant level, if possible; and (5) the names of individuals who prepared the IS.

Assumptions:

- If one or more environmental impacts are identified during preparation of the IS that have the potential to be significant, ESCO will notify the City immediately. If it is determined that preparation of an EIR is necessary, an amendment to the scope of work and cost estimate would be required.
- The City will provide one set of consolidated comments on the administrative draft IS with any discrepancies resolved.

Deliverables:

- Administrative draft IS (electronic)

Task 6.3 - Screen-check Draft IS/MND

Following receipt of the City’s comments, ESCO will conduct a conference call with the City to discuss comments and agree on revisions to the draft IS. Based on the conference call and comments received, the City will determine whether to continue forward with an IS/MND or whether an EIR may be necessary.

Assuming that an IS/MND is appropriate, ESCO will prepare a screen-check draft IS/MND and draft mitigation monitoring and reporting plan (MMRP), which will be incorporated as an appendix to the IS/MND.

ESCO will prepare a Notice of Intent (NOI), alerting the public to the availability of the draft IS/MND for review. In compliance with CEQA requirements, the NOI will contain a description of the project and location; identification of significant environmental impacts; dates of the public review period; addresses of locations where the draft IS/MND and supporting documents are available for review; and a statement of whether the project site is a listed toxic site. A draft and final NOI will be prepared for the City's review and approval. This work plan assumes that the NOI will be posted on the City's website and will not be distributed by mail. In addition, ESCO will prepare a newspaper notice based on the NOI for review by the City.

In accordance with CEQA Guidelines Section 15085, ESCO will prepare a Notice of Completion (NOC) for filing along with the IS/MND at the State Clearinghouse. The NOC will contain information describing the project (including location), physical and/or electronic locations where the draft IS/MND is available for public review, and the dates of the 30-day review period.

ESCO will submit an electronic copy of the screen-check draft IS/MND and notices to the City for review. ESCO will finalize the IS/MND and notices based on comments received from the City on the screen-check draft IS/MND. It is assumed that, at this stage, comments will be primarily related to minor editing and document layout and format.

As required by California law (Section 7405 of the California Government Code), the revised screen-check draft IS/MND will then be sent to Allyant, a nationally known accessibility contractor, to be remediated to meet California ADA requirements for file accessibility.

Assumptions:

- The City will provide one set of consolidated comments on the screen-check draft IS/MND with any discrepancies resolved.
- The cost for ADA remediation included in this proposal is an approximation only; the City will be provided a cost estimate from Allyant before submittal of files for remediation.
- The City acknowledges that ESCO cannot control the schedule for remediation; therefore, scheduling of the public review period will be approximate.

Deliverables:

- Screen-check draft IS/MND (electronic)
- Draft MMRP
- Draft NOI, NOC, and newspaper notices

Task 6.4 - Public Draft IS/MND and Public Notices

ESCO will coordinate with a newspaper of general circulation to post the legal notice. ESCO will work with the City to coordinate permission to submit the IS/MND, NOC, and NOI to the State Clearinghouse and County Clerk and will coordinate filing to begin the 30-day public review period.

This work plan assumes that no public meeting will be held to gather public comments on the proposed project.

Assumptions:

- The City will provide one set of consolidated comments on the screen-check draft IS/MND with any discrepancies resolved.
- The cost for ADA remediation included in this proposal is an approximation only; the City will be provided a cost estimate from Allyant before submittal of files for remediation.
- The City acknowledges that ESCO cannot control the schedule for remediation; therefore, scheduling of the public review period will be approximate.
- The State Clearinghouse requires up to 3 days to officially post a document for public review; therefore, scheduling of the public review period will be approximate.
- No public meeting will be held during the 30-day public review period.

Deliverables:

- Public draft IS/MND (electronic), NOI, and NOC posted to SCH
- NOI provided to County Clerk's office
- Newspaper notice published

Task 6.5 - Response to Comments Memorandum, MMRP, and Notice of Determination

This task assumes that public comments do not result in substantial revision to the impacts or mitigation measures identified in the IS/MND, and that recirculation is not necessary. The level of effort for this task is assumed to address no more than 20 individual comments.

Following the close of the public comment period on the IS/MND, ESCO and the City will review the comments received. ESCO will conduct a conference call with the City to discuss the key comments received and determine the approach to response preparation. ESCO will then prepare a draft and final memorandum that briefly considers the comments received and provides responses for the City's use in adopting the IS/MND.

In conformance with CEQA Guidelines Section 15132, ESCO will finalize the response-to-comments memo and MMRP for adoption. In addition, ESCO will be available to attend an approval hearing to present information about the CEQA process and the findings of the IS/MND and to answer questions from decision makers.

ESCO will prepare a Notice of Determination (NOD) conforming to CEQA Guidelines Section 15094. The NOD will identify the project description, location, date of project approval, statement that the IS/MND was adopted, summary of the project's significant effects, statement of whether mitigation measures were made, conditions of project approval, and the address where the IS/MND can be reviewed. Within 5 days of project approval, ESCO will file the NOD with the local county clerk/recorder and the State Clearinghouse. ESCO will pay county clerk processing fees ($50) and California Department of Fish and Wildlife filing fees (currently $2,968.75) to accompany delivery of the NOD to the State Clearinghouse.

Assumptions:

- This task assumes that public comments do not result in substantial revision to the impacts or mitigation measures identified in the IS/MND, and that recirculation is not necessary.
- The level of effort for this task is assumed to address no more than 20 individual comments.

Deliverables:

- Administrative draft response-to-comments memo (electronic)
- Final response-to-comments memo (electronic)

- Attendance at approval hearing

Task 7 - Environmental Permitting

Task 7.1 - Clean Water Act Section 404 – USACE

The project may require authorization from USACE under CWA Section 404 for fill and/or dredge within jurisdictional waters of the U.S. ESCO will evaluate whether the project may qualify under a Nationwide Permit (NWP). The application package will include:

- Cover letter to introduce the project;
- PCN form;
- Design Plans (provided by ESCO and the City); and
- Technical studies, including the biological conditions report (Task 5.1), wetland delineation report (Task 5.2), and cultural resources assessment (Task 5.3).

ESCO will prepare and submit a draft NWP application package to the City for review. ESCO will address one round of comments from the City and revise and submit the permit application package to USACE. This scope of work will include up to two conference calls with the City and USACE during the permit application process.

Task 7.2 - CWA Section 401 – RWQCB

The project will require authorization from the Central Valley RWQCB under CWA Section 401 for fill and/or dredge in waters of the state. ESCO will prepare the following permit application items:

- Cover letter to introduce the project;
- Application for Discharges of Dredged or Fill Material to Waters of the State (401 Certification), which is the standard permit application form for RWQCB permits;
- Design Plans (provided by the City and ESCO);
- Technical studies, including the biological conditions report (Task 5.1) and wetland delineation report (Task 5.2);
- Revegetation Monitoring Plan, if needed; and
- CEQA compliance documentation (Task 6).

Before submitting the 401 Certification package to RWQCB, it is now a standard requirement that a Prefiling Meeting be requested. ESCO will prepare a 401 Certification Pre-filing Meeting request for submittal to RWQCB, which will determine whether the meeting will be held. If a meeting is held, ESCO will accompany the City.

The draft 401 Certification package will be submitted to the City for one round of review. ESCO will revise and submit the permit application package to RWQCB. This scope of work will include up to two conference calls with the City and RWQCB during the permit application process.

Supplemental information or data may be requested by RWQCB during the application review process. ESCO will support the information response process with RWQCB, to the extent that remaining budget is available in this task once the permit application is developed and submitted.

Task 7.3 - California Fish & Game Code Section 1602 – CDFW

ESCO will prepare a standard application for a Streambed Alteration Agreement (SAA) following the application format provided in the CDFW Environmental Permit Information Management System

(EPIMS) External Permitting Portal. ESCO will also prepare supplemental information, as needed, to support the application. ESCO will prepare and submit a draft version of the application and supplemental information for review by the City. ESCO will revise the application materials based on one round of comments and upload the material to the EPIMS portal. This scope of work will include one conference call with the City and CDFW SAA reviewers during the permit application process.

Task 7.4 - Regulatory Agency Coordination

Under this task, ESCO will support the City with additional regulatory agency coordination to track the permit review and approval process. The tracking and coordination process may include activities such as answering questions from regulatory staff on the application materials; providing project updates to the regulatory agencies; preparing memoranda to address regulatory requests for information; and participating in calls, meetings, and site tours with agency representatives.

The budget estimate for this task is based on our experience with similar projects. Actual costs will be dependent on the level of assistance requested by the City. ESCO will provide regulatory coordination services up to the level of effort shown in the cost estimate for this task.

Assumptions:

- If CDFW requests additional information for the application to be considered complete, ESCO will be available to revise and/or supplement the SAA application package within the available budget remaining in this task once the permit application has been developed and submitted.
- If USACE determines that the project does not meet NWP requirements and elects to authorize the project under an alternative permitting pathway, such as a standard permit, then ESCO will discuss the permitting process with the City and an amendment to this scope of work may be required.
- This scope assumes that permanent impacts to waters and wetlands of the U.S./state would be less than 0.1 acre. If the project impacts would exceed this area, then authorization by USACE would be required to qualify for a NWP.
- It is assumed the project can be designed and constructed in a manner that avoids take of federally listed and/or state-listed species. If take of a listed species is unavoidable, an amendment to this scope of work may be required.
- The City will be the primary contact with regulatory agency staff throughout the permitting process. ESCO will provide support as remaining budget for Task 7 allows.
- The cost estimate does not include permit submittal fees or annual permitting fees. Permit submittal fees will be paid by the City or can be added to the budget when known.
- Surveys will be reconnaissance level and daytime events only; no protocol-level surveys will be conducted.

Task 8 - Administrative Record

ESCO will maintain all aspects of the administrative record as it relates to the development of various environmental documents for the duration of the contract. Entries to the administrative record will be collected from technical staff and incorporated into the administrative record. Throughout the project contract, ESCO will make the administrative record readily available to the City upon request.

The complete administrative record will be delivered to the City within 6 weeks following filing of the NOD.

NON-WASTEWATER TREATMENT FACILITY ~~(WWTF)~~ - IGA SCOPE OF WORK

~~1.~~ SCOPE OF WORK

Scope of work includes a description of the Energy Conservation Measures (ECM), Energy Generation Measures (EGM) and/or Facility Improvement Measures (FIM) and is a preliminary look at different options that will be discussed with the Customer to identify priorities and finalize the Phase 1 scoping project.

ESCO will utilize city's existing energy reports, such as "Distributed Energy Resource (DER) Recommendations Summary" dated March 17, 2025 for solar PV, battery storage and EV charging recommendations at the Auditorium, Community and Admin Building, and Miner's Bend for purposes of potential project estimates and feasibility. ESCO will use report's data for solar, battery and EV charging for Phase 1 non-wastewater sites, however, will do own analysis for solar and battery storage sizing at wastewater treatment plant.

Additional scope items to be evaluated include lighting and mechanical work at all (7) sites listed in the Facilities table in Section 3. ESCO will work with City to prioritize the oldest HVAC units and any remaining non-LED interior and exterior lighting.

Any scope items outside of solar, battery storage, EV charging, lighting and mechanical will fall into Phase 2 after determination of Wastewater Treatment Plant Upgrades scope and financials, for evaluation by ESCO. Examples include: streetlighting, irrigation, building automation, and other energy and water savings measures. During Phase 2, ESCO will also perform due diligence regarding existing energy report data and assumptions as they advance to Phase 2.

~~2.~~ PHASES OF DESIGN

The Design Scope of Work shall consist of one phase: Conceptual Development (Up to 30% Design Scoping Meeting).

Phase 1: Conceptual Development (Project Scoping)

At the Phase 1 final meeting, ESCO shall demonstrate for Customer whether recommended improvement measures are viable and whether financial benefits (including grants) can be derived by their implementation in an amount sufficient to cover costs associated with the Project.

Scope of work includes a description of the Energy Conservation Measures (ECM), Energy Generation Measures (EGM) and/or Facility Improvement Measures (FIM), a clear understanding of grant criteria and estimated probability of securing grants, calculation of energy and operational savings, and preliminary costs for the construction of the scope.

Phase 2: Final Design Development

During Phase 2, ESCO will use final scope determination from Phase 1 to put together a firm fixed price for all non-waste water scope, including all due diligence to finalize design documents as well as costs and savings for each ECM.

Phase 2 will include: Final scope of work, final fixed firm pricing, financial pro-forma, guaranteed annual energy savings and M&V plan, commissioning plan, operations & maintenance plan, training plan and final drawings and equipment specifications.

~~3.~~ FACILITIES INCLUDED

The Design Services will be performed in the following Customer facilities. Any additional facilities to be added in the future must be by mutual agreement between Customer and ESCO:

Facilities			
Building Name	**Address**	**Square Footage**	**Year Built**
Auditorium	18 Main St, Sutter Creek, CA 95642	5,040	1928
Community Building	33 Church St, Sutter Creek, CA 95642	3,370	2005
Administrative Building	35 Church St, Sutter Creek, CA 95642	1,155	1880
Historic Grammar School	111 Cole St, Sutter Creek, CA 95642	6,000	1856
Monteverde Store	11 Randolph St, Sutter Creek, CA 95642	1,600	1896
WWTP	340 Mahoney Mill Rd, Sutter Creek, Ca 95642	-	-
Miner's Bend Park	29 Old Rte 49, Sutter Creek, CA 95685	-	-

~~4.~~ RESPONSIBILITIES

Customer ~~Will:~~

Customer will:

1. Provide ESCO with all such access, knowledge and history as may be relevant to ESCO's analysis and/or design, including, without limitation:
    a. access to Customer's Facilities, systems and equipment, including remote network access, as necessary or appropriate to facilitate ESCO's analysis and design (i.e. enabling ESCO to take equipment inventory, determine operating schedules, evaluate known operational deficiencies, perform an energy efficiency analysis, measure actual energy use, etc.);
    b. access to key personnel to discuss operating requirements, maintenance practices, and other information relevant to ESCO's analysis;
    c. information relating to any and all known or suspected deficiencies, defects and malfunctions of or affecting the Facilities, systems, equipment and components thereof;
    d. information relating to any site conditions that should be considered in planning and executing the construction services;
    e. twenty-six (26) months of electric, gas, and water data, including utility billings on meters for all premises owned by Customer; and
    f. access to copies or loans of such documentation as may be relevant to ESCO's analysis, including, as applicable and without limitation, Facility plans, equipment lists, and/or other utility invoices.

2. Meet with ESCO to establish Project criteria and make Project decisions in a timely manner.
3. Promptly inform ESCO if at any point Customer becomes aware of any portions of scope that will not be included or funding that will not be available for final Project implementation.

ESCO ~~Will:~~

ESCO will:

1. Compile information reasonably requested by Customer for purposes of any grant applications being submitted by the Customer in connection with the Project.
2. Conduct a Project programming meeting, Facility walk-through(s) and personnel interview(s) to gain an understanding of Facility operations, concerns, needs, and desired performance criteria.
3. Work with Customer to refine performance requirements, financial criteria, and Project scope.
4. Provide Customer an energy, revenue, and cost savings analysis demonstrating the simple ROI effect of project finances and operations.
5. Provide Customer with a Scoping Proposal setting forth the following:
    a. Proposed Scope of Work for Phase 2
    b. Proposed Preliminary Schedule for Phase 2 Development and Phase 3 Construction
    c. Preliminary Project Estimate for Phase 3 Construction

PROJECT FUNDING SUPPORT

ESCO will assist the City in identifying and understanding available grants and incentive programs, including their eligibility requirements, timelines, and qualification criteria. ESCO will also provide support throughout the application process for these incentives and contribute to the grant writing efforts.

In addition, ESCO will collaborate with the City and its designated financial advisor or manager to coordinate and pursue funding opportunities, including loan applications from potential private and public financial institutions.